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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/358,940	07/22/1999	WHONCHEE LEE	3028.1US-(96	2152

7590 12/16/2003

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EXAMINER

VINH, LAN

ART UNIT PAPER NUMBER

1765

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/358,940

Applicant(s)

LEE ET AL.

Examiner

Lan Vinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

1. In view of the Appeal Brief filed on 5/12/2003, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Laou et al (US 5,857,885)

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Laou discloses a method for etching using a wet etching solution containing : acetic acid/claimed organic acid and hydrofluoric acid/claimed fluoride containing solution (col 4, lines 54-55), Laou also discloses that the volumetric ratio of acetic acid to hydrofluoric acid is 10:1 (col 4, lines 55-56). It is noted that no patentable weight is given to the phrase "which selectively etches BPSG over TEOS" because the intended use of composition is not patentably significant. *In re Alberton* 141 USPQ 730 (CCPA 1964); *In re Heck* 114 USPQ 161 (CCPA 1957).

The limitations of claims 2-3 have been discussed above.

Regarding claim 8, it is noted that no patentable weight is given to the phrase "wherein said etchant solution exhibits a selectivity ratio of BPSG over TEOS between about 27:1 and 55:1" because the intended use of composition is not patentably significant. *In re Alberton* 141 USPQ 730 (CCPA 1964); *In re Heck* 114 USPQ 161 (CCPA 1957).

4. Claims 1-4, 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al (US 4,230,522)

Martin discloses a method for etching using a wet etching solution containing : glacial acetic acid/claimed organic acid, (49%) hydrofluoric acid/claimed fluoride containing solution, (40%) ammonium fluoride (col 4, lines 48-53). Martin also discloses that the volumetric proportion/ratio of glacial acetic acid to hydrofluoric acid is 5:0.05/100:1 (col 4, lines 55-56). 56). It is noted that no patentable weight is given to the phrase "which selectively etches BPSG over TEOS" because the intended use of

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composition is not patentably significant. *In re Alberton* 141 USPQ 730 (CCPA 1964); *In re Heck* 114 USPQ 161 (CCPA 1957).

The limitations of claims 2-4, 6-7 have been discussed above.

5. Claims 9-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Laou et al (US 5,857,885)

Laou discloses a method for etching using a wet etching solution containing : acetic acid/claimed organic acid and hydrofluoric acid/claimed fluoride containing solution (col 4, lines 54-55). It is noted that no patentable weight is given to the phrase "which selectively etches BPSG over TEOS" and "wherein the etchant solution exhibits a selectivity ratio of BPSG over TEOS between about 27:1 and 55:1" because the intended use of composition is not patentably significant. *In re Alberton* 141 USPQ 730 (CCPA 1964); *In re Heck* 114 USPQ 161 (CCPA 1957).

6. Claims 9-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al (US 4,230,522)

Martin discloses a method for etching using a wet etching solution containing : glacial acetic acid/claimed organic acid, (49%) hydrofluoric acid/claimed fluoride containing solution, (40%) ammonium fluoride (col 4, lines 48-53). Martin also discloses that the volumetric proportion/ratio of glacial acetic acid to hydrofluoric acid is 5:0.05/100:1 (col 4, lines 55-56). It is noted that no patentable weight is given to the phrase "which selectively etches BPSG over TEOS" and "wherein the etchant solution

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exhibits a selectivity ratio of BPSG over TEOS between about 27:1 and 55:1" because the intended use of composition is not patentably significant. *In re Alberton* 141 USPQ 730 (CCPA 1964); *In re Heck* 114 USPQ 161 (CCPA 1957).

The limitations of claims 10-12, 15 have been discussed above.

Regarding claim 13, Martin's etchant volumetric proportion/ratio of glacial acetic acid to hydrofluoric acid is 5:0.05/100:1 also overlaps the claimed range of 1:1 to about 500:1.

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chandler (US 5,843,322) discloses a method for etching using a wet etching solution containing : glacial acetic acid and hydrofluoric acid (see abstract)

### ***Conclusion***

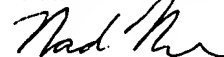
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Vinh whose telephone number is 703 305-6302.

The examiner can normally be reached on M-F 8:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 703 305-2667. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

**NADINE G. NORTON  
PRIMARY EXAMINER**



LV  
December 5, 2003